

## CLAIMS

What is claimed is:

- 1 1. A method comprising:  
2 requesting an InfiniBand connectivity configuration;  
3 receiving a response regarding whether the requested configuration can be  
4 provided; and  
5 attempting to establish the requested connectivity configuration if the response to  
6 the request is affirmative.
- 1 2. The method of claim 1, wherein the requested connectivity configuration is not  
2 contained in the specification established for the InfiniBand architecture.
- 1 3. The method of claim 1, wherein the requested connectivity configuration is  
2 comprised of a plurality of links.
- 1 4. The method of claim 1, wherein the requested connectivity configuration is  
2 provided using a standard InfiniBand backplane connector.
- 1 5. The method of claim 1, wherein said request for a connectivity configuration is  
2 made by an InfiniBand module to an InfiniBand chassis management entity.
- 1 6. The method of claim 1, wherein said request for a connectivity configuration is  
2 made through an InfiniBand management link.

- 1 7. The method of claim 6, wherein said request for a connectivity configuration is  
2 written to a first management link configuration register and said response to said  
3 request is written to a second management link configuration register.
- 1 8. A method comprising:  
2 receiving a connectivity configuration request associated with an InfiniBand  
3 connector, the configuration request representing an expanded InfiniBand  
4 connector configuration including information indicative of one or more  
5 desired links to be established through the InfiniBand connector and  
6 assigning one or more physical lanes of the InfiniBand connector to each  
7 of the one or more desired links; and  
8 configuring the InfiniBand connector in accordance with said connectivity  
9 configuration request.
- 1 9. The method of claim 8, wherein said connectivity configuration request is made  
2 by an InfiniBand module and is received by an InfiniBand chassis management  
3 entity.
- 1 10. The method of claim 8, wherein said expanded InfiniBand connector  
2 configuration is not contained in the specification established for the InfiniBand  
3 architecture.
- 1 11. The method of claim 8, wherein said expanded InfiniBand connector  
2 configuration is comprised of a plurality of links.

1 12. A method comprising:  
2 an InfiniBand management link operating to enable the establishment of an  
3 InfiniBand connectivity configuration, wherein said management link:  
4 records a request for a connectivity configuration made by an InfiniBand  
5 module;  
6 allows an InfiniBand chassis to obtain said request for a connectivity  
7 configuration;  
8 records a response from said InfiniBand chassis to said request for a  
9 connectivity configuration; and  
10 allows said InfiniBand module to obtain said response to said request for a  
11 connectivity configuration.

1 13. The method of claim 12, wherein said request for a connectivity configuration  
2 requests an expanded configuration that is not contained in the specification  
3 established for the InfiniBand architecture.

1 14. The method of claim 12, wherein said request for a connectivity configuration is  
2 written to a first management link configuration register and said response is  
3 written to a second management link configuration register.

1 15. The method of claim 12, wherein the requested connectivity configuration is  
2 comprised of a plurality of links.

1 16. A network apparatus comprising:

2 an InfiniBand connector;  
3 an InfiniBand module that is operable to make a request for an expanded  
4 connectivity configuration for the InfiniBand connector;  
5 a chassis management entity coupled to said InfiniBand module that receives the  
6 request for an expanded connectivity configuration for the InfiniBand  
7 connector and that provides a response regarding whether the requested  
8 configuration can be provided.

1 17. The network apparatus of claim 16, wherein said requested connectivity  
2 configuration is not contained in the specification established for the InfiniBand  
3 architecture.

1 18. The network apparatus of claim 16, wherein the requested connectivity  
2 configuration is other than:  
3 a single link comprised of a connection to the first pin of a plurality of pins on the  
4 InfiniBand connector;  
5 a single link comprised of a connection to the first four pins of the plurality of  
6 pins on the InfiniBand connector; or  
7 a single link comprised of a connection to the first twelve pins of the plurality of  
8 pins on the InfiniBand connector.

1 19. The network apparatus of claim 16, wherein said InfiniBand module is operable  
2 to establish the requested connectivity configuration if the response to said  
3 connectivity request is affirmative.

- 1 20. The network apparatus of claim 16, wherein said requested connectivity  
2 configuration is comprised of a plurality of links that are provided simultaneously  
3 through said InfiniBand connector.
- 1 21. The network apparatus of claim 16, wherein the InfiniBand connector is a  
2 standard InfiniBand backplane connector.
- 1 22. The network apparatus of claim 16, wherein the said request for a connectivity  
2 configuration is made through an InfiniBand management link.
- 1 23. The network apparatus of claim 21, wherein said request for a connectivity  
2 configuration is written to a first management link configuration register and said  
3 response to said request is written to a second management link configuration  
4 register.
- 1 24. A machine readable medium having stored thereon data representing sequences of  
2 instructions which, when executed by a processor, cause the processor to perform  
3 operations comprising:  
4 requesting an expanded InfiniBand connectivity configuration;  
5 receiving a response regarding whether the requested configuration can be  
6 provided; and  
7 establishing the requested configuration.
- 1 25. The medium of claim 24 wherein the requested connectivity configuration is not  
2 contained in the specification established for the InfiniBand architecture.

- 1 26. The medium of claim 24 wherein the requested connectivity configuration is  
2 comprised of a plurality of links.

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